

國際公開公報

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/012237 A1

- (51) International Patent Classification⁷: C07C 263/20. (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (21) International Application Number: PCT/JP2004/011019
- (22) International Filing Date: 27 July 2004 (27.07.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
2003-283695 31 July 2003 (31.07.2003) JP
60/493,455 8 August 2003 (08.08.2003) US
- (71) Applicant (for all designated States except US): SHOWA DENKO K.K. [JP/JP]; 13-9, Shibadaimon 1-chome, Minato-ku, Tokyo, 1058518 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MORINAKA, Katsutoshi [JP/JP]; c/o SHOWA DENKO K.K., 111, Aza-Nagayachi, Ooaza-Higashinagahara, Kawahigashi-machi, Kawanuma-gun, Fukushima, 9693431 (JP). HOSHI, Kazuyoshi [JP/JP]; c/o SHOWA DENKO K.K., 111, Aza-Nagayachi, Ooaza-Higashinagahara, Kawahigashi-machi, Kawanuma-gun, Fukushima, 9693431 (JP).
- (74) Agent: SUZUKI, Shunichiro; S.SUZUKI & ASSOCIATES, Gotanda Yamazaki Bldg. 6F, 13-6, Nishigotanda 7-chome, Shinagawa-ku, Tokyo, 1410031 (JP).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BI, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/012237 A1

(54) Title: PROCESS FOR PREPARING HIGH PURITY (METH)ACRYLOYLOXYALKYL ISOCYANATE

(57) Abstract: A process for preparing a high purity (meth)acryloyloxyalkyl isocyanate having a very small hydrolyzable chlorine content is provided. The high purity (meth)acryloyloxyalkyl isocyanate is prepared by subjecting a hydrolyzable chlorine containing (meth)acryloyloxyalkyl isocyanate to mixing treatment with an epoxy compound and an amine at a temperature of from 110 to 160°C to prepare a mixture; and preparing a high purity (meth)acryloyloxyalkyl isocyanate from the resulting mixture with distillation. In particular, it is possible to effectively prevent (meth)acryloyloxyalkyl isocyanate from polymerization during the distillation by adding a polymerization inhibitor such as phenothiazine and the like.

BEST AVAILABLE COPY